

1

2

ABSTRACT OF THE DISCLOSURE

3

4

5

6

7

8

9

10

11

12

13

A speaker system includes a speaker driver loaded by a horn waveguide. The speaker driver reproduces sound within an extended frequency range that includes a high frequency band between 8 kHz and 11 kHz. In the preferred embodiment, the extended frequency range includes a wide frequency band between 2 kHz and 11 kHz (and most preferably including the frequency band between 800 Hz and 11 kHz). The horn waveguide has an axi-symmetrical waveguide surface that provides uniform polar dispersion at dispersion angles greater than 90 degrees for sound within the extended frequency range. The waveguide surface preferably has an annular cross section with a radial dimension that increases curvilinearly from its throat to its mouth, such as a tractroid surface.